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25X1

[redacted]

SAFC-9257
Copy 4 of 8

31 August 1956

MEMORANDUM TO : Project Director

THROUGH : Contracting Officer 9/25

SUBJECT : Trip to West Coast [redacted] from 19 August to 25 August 1956 inclusive. 25X1

1. Itinerary

20 August - Hycon -

20 August - Lockheed -
21-23 August - Ranch -

24 August - Hycon -

[redacted] 25X1

2. Stopped in at Hycon to inform them I had arrived and to give them a list of items I would discuss with them after returning from the Site. I then proceeded to Lockheed Aircraft Corporation, Burbank to discuss condensation and frosting problems with [redacted] 25X1

The most important point came up in the early part of the conversation with [redacted] I got the understanding from Ed that he was not aware that the B configuration had been committed and consequently the probabilities of condensation or frosting should be investigated and fixes started on a priority greater than either the A-1 or A-2. 25X1

The fix for A-1 and A-2 pertaining to condensation or frosting is the heat for each camera (this is to prevent any oil deposition on the windows) and a heater of the resistance type to rim each of the windows. The effectiveness of this fix has not been definitely established due to the lack of atmospheric conditions at Ranch conducive to frosting or condensation. This fix of course is not applicable to any degree to the B or C configuration. [redacted] mentioned [redacted] the possibility of utilizing fans for each window of the A-1's and A-2's or a central blower system to duct air over windows.

Ed stated a scoop originating from the inflow valves of the equipment bay and terminating at the windows will be fabricated and shipped out to the Ranch by the week of 27 August. It was planned to incorporate a silica gel filter with the metal scoop. It was suggested to Ed it would be preferable to pass the inflowing air over or around the desiccant rather than through the filter. The latter method has

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the disadvantage of reducing the velocity of the air flow into equipment bay and reducing efficiency of filter.

The scoop for the "B" configuration was to be sent to the Ranch the following week for installation and flight testing. [redacted] and I reviewed the factors contributing to the condensation and freezing. 25X1

Recommendation:

I believe installation of a hygro-thermograph in the equipment bay and a collection of readings taken while a/c is in flight and parked would give us information which would be extremely helpful in pin pointing our problem areas. For example, readings when correlated with other data could give us an indication as to whether moisture retained within Fiberglass insulation is a major factor; if desiccants can be used and to what degree; size of sump needed for water separator and type of device needed to keep air circulating over the window.

I promised to send R4 technical data pertaining to desiccants and hygro-thermograph instruments. This has been done.

3. On arrival at Ranch talked to [redacted], LAC. He too was unaware of priority given to B regarding freezing. 25X1

4. Inspected Q-56 material with [redacted] Although runs were made over terrain of a homogeneous nature it compared favorably with line scan material I evaluated for USAF sometime ago. I suggested to [redacted] he could get better test results if he directed his missions over areas containing a variety of targets and landforms and over which we have photo coverage. I recommended flight lines over California, Oregon and Washington. Suggested he get in touch with [redacted] of Hycon and work out a joint program. [redacted] agreed with the plan and assured [redacted] facilities were available. I mentioned the discussion and outlined the plan to [redacted] on 22 August 1956. 25X1 25X1 25X1 25X1

5. On 22 August 1956 the 70 MM processor and printer arrived at the Ranch as did 13 boxes of "B" film and 3 boxes of spare parts for FAK. The processor and printer was unpacked and found to be in excellent condition.

6. Inspected Kelite installation and found the covers had been blown off the light source and revolving mirror. Replaced covers and secured them. Brought my findings to the attention of [redacted] and [redacted]. 25X1 25X1

7. Both [redacted] indicated they would like to be kept current on trends and planning within Project Headquarters. 25X1

8. [redacted] mentioned difficulties encountered in curing of asphalt pavement. We went out to runway while a/c was on runway and watched take off. No signs of a/c sinking into pavement. While observing pre-flighting of a/c, brought to crew chief's attention to improper alignment and placement of vertical camera window cover. 25X1

9. Spent 23 and 24 August 1956 at Hycon. At this time [redacted] stated there were 45 "B" type spools available for shipment however because of the shipping flange problem he, [redacted] decided to hold up shipment until the week of 27 August when they hope to have established a fix. Present 3/4" [redacted] is inadequate. 25X1 25X1

On 23 August the mirror for B #6 was received. Spectral banding indicated uneven metallic coating. As mirror is needed by

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5 September for B assembly and delivery by 15 September a decision had to be made to reject or accept the mirror. Hyson called [redacted] - 25X1
P & E who stated he was aware of the discrepancy but it would not affect the performance of the camera. Keeping in mind the time scheduling for B cameras and the small loss of performance due to uneven coating it was recommended the mirror be incorporated within #6 B camera.

10. Regarding "C" camera [redacted] stated optical system 25X1
scheduled to be shipped to them around 10 September, about 2 weeks after receipt the optical system should be assembled. About 50% of parts exclusive of optics are in Hyson ready for assembly. Parts should be ready for assembly at end of August. Time for assembly is dependent on emphasis of project (priority), amount of rework etc. [redacted] 25X1
stated all parts would be on hand 28 September. Limiting factor would be reseating mirror mount which will take approximately 3 weeks. Three (3) weeks for assembly etc. will bring "C" out around third week in October. I told both [redacted] 25X1
the necessity of submitting a test program to the Ranch in sufficient detail to give [redacted] some planning 25X1
data. To date [redacted] has received no test program from Hyson. 25X1

Phil indicated a "C" breadboard stabilization system will be sent to Ranch on 6 September 1956. To properly check out component extremely accurate drift and track adjustment will have to be derived between runs. Maximum deviation can not exceed approximately 1 ½ track in order to retain calculated resolution of 60 lines/mm. It is also preferable that test a/c have 400 cycle power.

Time periods cited by Hyson for the "C" are optimistic. A reading should be taken on progress at next Suppliers Meeting to verify above schedules.

11. "C" type spools have been sent to E K about one (1) month ago. Hyson have a release for 50 more spools. Flanges for these spools are under subcontract.

[redacted] 25X1

Orig - Project Director
2 - Dep. Project Director
3 - Operations
4 - [redacted]
5 - [redacted]
6 - [redacted]
7 - Chrono
8 - Reading

5 C - 21 - 56

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